

CLAIMS

We claim:

1. A load lowering system, comprising:

- a. at least one friction rod vertically mounted on a building;
- b. a friction collar disposed around said friction rod;
- c. means for creating a friction force between said friction collar and said friction rod that resists movement of said friction collar over said friction rod;
- d. at least one glide rod vertically mounted on a building, said glide rod being spaced apart from and parallel to said friction rod, said glide rod including a helical thread formed thereon;
- e. a guide collar disposed around said glide rod, said guide collar including means for engaging said thread on said guide rod thereby causing said glide rod to rotate as said glide collar travels over said glide rod; and,
- e. a support platform disposed perpendicularly to said friction rod and said glide rod, said support platform being supported by said friction collar when attached to said friction rod and by said guide collar when attached to said guide rod.

2. The load lowering system, as recited in Claim 1, wherein said means for creating the amount of friction force is a plurality of biased friction points on said friction collar that press against said friction rod.

3. The load lowering system, as recited in Claim 2, wherein said friction collar includes means for adjusting the amount of friction force between said friction force between said

1 friction collar and said friction rod.

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3 4. The load lowering system, as recited in Claim 3, wherein said means for adjusting the
4 amount of friction forces are adjustment screws that adjust the amount of biasing forces
5 extended by said friction points.

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7 5. The load lowering system, as recited in Claim 2, wherein said friction rod varies in
8 diameter along its length.

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10 6. The load lowering system, as recited in Claim 3, wherein said friction rod varies in
11 diameter along its length.

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13 7. The load lowering system, as recited in Claim 1, wherein said guide collar includes an
14 upper bearing plate securely attached to said support platform and a rotating lower bearing
15 plate that rotates around said glide rod when said guide collar moves longitudinally over said
16 glide rod.

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18 8. The load lowering system, as recited in Claim 7, wherein said friction collar includes
19 means for adjusting the amount of friction force exerted by said means for creating friction
20 force between said friction collar and said friction rod.

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22 9. The load lowering system, as recited in Claim 8, wherein said friction collar includes
23 means for adjusting the amount of friction force exerted by said friction collar on said friction

1 rod.

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3 10. The load lowering system, as recited in Claim 9, wherein said friction rod varies in
4 diameter along its length.

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6 11. The load lowering system, as recited in Claim 7, further including a set of bearings
7 disposed between said upper bearing plate and said lower bearing plate enabling said lower
8 bearing plate to rotate relative to said upper-bearing plate.

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10 12. The load lowering system, as recited in Claim 8, further including a set of bearings
11 disposed between said upper bearing plate and said lower bearing plate.

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13 13. The load lowering system, as recited in Claim 11, further including at least one vane
14 guide plate attached to said lower bearing plate that slides over said vanes on said glide rod as
15 said guide collar moves longitudinally over said glide rod.

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17 14. The load lowering system, as recited in Claim 12 further including at least one vane
18 guide plate attached to said lower bearing plate that slides over said vanes on said glide rod as
19 said guide collar moves longitudinally over said glide rod.

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21 15. The load lowering system, as recited in Claim 1 further including a collapsible canopy
22 attached to said support platform.

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1 16. The load lowering system, as recited in Claim 15 further including an upper frame
2 member located above said support platform that attaches to said collapsible canopy to unfold
3 said canopy when said support platform moves from a stored position to a loading position.
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5 17. The load lowering system, as recited in Claim 3 further including a canopy attached to
6 said platform.
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8 18. The load lowering system, as recited in Claim 1 further including a bracket attached
9 to each said friction rod for holding said support platform in a stored raised position when not
10 in use.
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12 19. The load lowering system, as recited in Claim 17, further including a release lever
13 coupled to said support platform to disengage said support platform from said bracket to
14 allow said support platform to descend over said friction rod and said guide rod to a loading
15 position.
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17 20. The load lowering system, as recited in Claim 18, further including a cable attached to
18 said support platform used to raise said support platform on said friction rod and said guide
19 rod.
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